

UNIVERSITY OF LONDON KING'S COLLEGE.

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(4 LINES)

STRAND, W. C. 2.

11th June, 1949

Dear Miss Franklin,

Thank you very much for sending me a copy of the letter which you are offering to Nature. I have read it with very great interest. I am obviously quite unable to judge the experimental side of it but your conclusion seems to me entirely reasonable and I cannot help thinking that some more detailed calculations might reasonably be made. We do know sufficient about the nature of the electron distribution in graphite to justify the calculation of atomic scattering factors.

Are you thinking of doing anything of this sort yourself or would you like us to take it up here? I am afraid that until next October term we shall not have anybody available to do new problems but I think it might be possible then. I do not think that it ought to be a very long job but one never knows until one has got started.

I was interested in what you said in your letter about the difference in layer spacing between the random orientations and the proper graphite crystal. I imagine you are aware of the work that has been done on the heats and combustion of different graphites at the National Bureau of Standards. They found that with random layers there was a regular variation in the heat of combustion with the decreasing amount of hydrogen present but that this value did not tend asymptotically to the value for the infinite crystal although they do not attempt to explain the situation. It is quite clear that in fact what they showed was that there was a substantial difference in cohesive energy between a genuine three dimensional crystal and the random two dimensional one. All that fits very nicely with your own observations.

Alas that I shall be out of London during the period 18th June to 26th. I am very sorry about this because it would have been nice to meet again and discuss these things. We are actually taking our summer holiday at that time. I do not expect to be back until about 4th July. If you are still in London at about that time I do hope that you will let me know.

With kind regards,

Yours sincerely,

CA - Coulson

Dr. Rosalind Franklin,
Paris.

P. S. I am returning the copy of your letter which you sent me. If you can spare it, however, I should be quite glad to keep it until your letter has actually been published.